

ABSTRACT OF THE INVENTION

Method and apparatus for stabilizing an optical carrier frequency of a generated carrier signal with respect to a target carrier frequency. The apparatus includes a multi-channel optical filter for filtering the generated carrier signal, thereby to provide a first filtered optical signal and a second filtered optical signal, each filtered optical signal including the portion of the generated carrier signal contained in a pass band surrounding a respective channel center frequency. The apparatus also includes a detection unit for determining an indication of a characteristic of the target carrier frequency in the first and second filtered optical signals, as well as a control unit for adjusting the optical carrier frequency of the generated carrier signal as a function of the difference in the indication of the characteristic of the target carrier frequency in the first and second filtered optical signals.

20

103250-25728850